

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as indicated below. The language being added is underlined (“ ”) and the language being deleted contains a strikethrough (“”). No new matter is added by the amendments.

Please substitute the following annotated paragraph for the abstract:

A method and system of the present inventions reduces both ~~[[NEXT]]~~near-end crosstalk (NEXT) and ~~[[FEXT]]~~far-end crosstalk (FEXT) interferences due to handshake tones into upstream and downstream neighboring services, both at the ~~[[CPE]]~~customer premises equipment (CPE) and at the ~~[[CO]]~~central office (CO), when handshake is experienced. An embodiment of the present inventions is directed to significantly reduce the NEXT and/or FEXT interferences due to handshake tones. For example, NEXT and/or FEXT interferences due to G.994.1 handshake tones, identified as, bins 7 and 9 for the Upstream channel and bins 12, 14 and 64 for the Downstream channel may be reduced. An embodiment of the present inventions provides an algorithm that may be used for both NEXT and FEXT Handshake Interferences reduction at the CO and at the CPE. In addition, the algorithm may operate in the time domain and in the frequency domain. Frequency domain algorithm offers two options, both versions taking advantage of the high correlation time of the Handshake tone signals.

Please substitute the following annotated paragraph for the paragraph beginning on page 8, line 15:

As ~~understand~~understood by various embodiments of the present inventions, white noise is difficult to predict thereby resulting in a low correlation time (e.g., approximately zero). On the other hand, a sinusoidal signal, for example, is a predictable signal exhibiting a high correlation time (e.g., approximately one). In addition, crosstalk signals due to handshake tones, for example, exhibit long correlation times, while a DMT signal similar to a white noise signal exhibits short correlation times. The various embodiments of the present inventions apply the long correlation times and short correlation times of signals to reduce crosstalk interferences due to handshake tones in the time domain and/or frequency domain at the CPE end and/or the CO end.